CLAIMS

What is claimed is:

1. A method of increasing the efficacy of a gastric H^+/K^+-ATPase pump inhibitor (PPI) in a mammal, said method comprising:

administering to said mammal a pentagastrin, a gastrin, or analogue thereof in conjunction with said gastric proton pump inhibitor.

2. The method of claim 2, wherein said a pentagastrin, a gastrin, or analogue thereof is pentagastrin.

3. The method of claim 2, wherein said mammal is a mammal diagnosed with a pathology characterized by excess gastric acid secretion.

4. The method of claim 3, wherein said pathology is selected from the group consisting of Zollinger/Ellison syndrome (ZES), gastroesophageal reflux disease (GERD), peptic ulcer disease, atrophic gastritis, esophagitis, and idiopathic gastric acid hypersecretion.

5. The method of claim 2, wherein said mammal is a human.

6. The method of claim 2, wherein said administering comprises administering said pentagastrin prior to administration of said gastric proton pump inhibitor.

7. The method of claim 2, wherein said administering comprises administering said pentagastrin simultaneously to administration of said gastric proton pump inhibitor.

8. The method of claim 2, wherein said proton pump inhibitor is selected from the group consisting of rabeprazole, omeprazole, lansoprazole, pantoprazole, and cogeners or racemic mixtures thereof.

9. The method of claim 2, wherein said pentagastrin is administered by subcutaneous injection.

10. The method of claim 2, wherein said pentagastrin is administered in a dosage ranging from about 0.1 mg/kg/hr to about 10 mg/kg/hr.

11. The method of claim 1, wherein said mammal is a human.

12. The method of claim 1, wherein said mammal is a non-human mammal.

13. A method of increasing urinary sodium excretion and urine volume, said method comprising:

administering to a mammal diagnosed with a pathological condition characterized by excessive fluid retention, an agonist at the CCK receptor agonist at a sufficient to increase urinary sodium excretion or free water excretion in said mammal

14. The method of claim 14, wherein said CCK receptor agonist is a pentagastrin, a gastrin, or an analogue thereof.

15. The method of claim 14, wherein said pentagastrin, gastrin, or analogue thereof is a pentagastrin.

16. The method of claim 15, wherein said condition is selected from the group consisting of high blood pressure, fluid retention associated with heart failure, fluid retention associated with acute or chronic kidney failure, fluid retention associated with cirrhosis, fluid retention associated with liver failure, calcium kidney stones, nephrogenic diabetes insipidus, renal tubular acidosis, treatment of Meniere's disease, constrictive pericarditis, and hepatorenal syndrome.

17. The method of claim 15, wherein said pentagastrin is administered in a dosage ranging from about 0.1 μg/kg/hr to about 10 μg/kg/hr.

18. The method of claim 14, wherein said mammal is a human.

19. The method of claim 14, wherein said mammal is a non-human mammal.

20. A kit for the treatment of a pathology characterized by excess gastric acid secretion, said kit comprising:

a container containing a proton pump inhibitor (PPI); and

a container containing a pentagastrin, gastrin, or analogue thereof.

21. The kit of claim 24, wherein said a pentagastrin, gastrin, or analogue thereof is pentagastrin.

22. The kit of claim 21, wherein said proton pump inhibitor is selected from the group consisting of rabeprazole, omeprazole, lansoprazole, pantoprazole, and or cogeners and racemic mixtures thereof.

23. The kit of claim 21, wherein said PPI is present in a pharmaceutically acceptable excipient or diluent.

24. The kit of claim 21, wherein said PPI is dehydrated.

25. The kit of claim 21, wherein said pentagastrin is present in a pharmaceutically acceptable excipient or diluent.

26. The kit of claim 21, wherein said pentagastrin is dehydrated.

27. The kit of claim 21, further comprising an antibiotic.

28. The kit of claim 27, wherein said antibiotic is selected from the group consisting of penicillin based antibiotics, tetracyclines, macrolides, cephalosporins, and fluoroguinolones.

29. The kit of claim 21, wherein said kit further comprises instructional materials describing the use of pentagastrin, gastrin, or an analogue thereof in conjunction with a PPI to reduce gastric acid secretion.

30. A kit for increasing urinary sodium excretion in a mammal, said kit comprising:

a container containing a pentagastrin, gastrin, or analogue thereof; and

instructional materials describing the use of said pentagastrin, gastrin, or analogue thereof to increase urinary sodium excretion in a mammal.

31. The kit of claim 24, wherein said a pentagastrin, gastrin, or analogue thereof is pentagastrin.